

1 Gary M. Hoffman (*Pro Hac Vice*)  
 2 Kenneth W. Brothers (*Pro Hac Vice*)  
 3 DICKSTEIN SHAPIRO LLP  
 4 1825 Eye Street, NW  
 5 Washington, DC 20006-5403  
 6 Telephone: (202) 420-2200  
 7 Facsimile: (202) 420-2201

8  
 9 Edward A. Meilman (*Pro Hac Vice*)  
 10 DICKSTEIN SHAPIRO LLP  
 11 1177 Avenue of the Americas  
 12 New York, NY 10036-2714  
 13 Telephone: (212) 227-6500  
 14 Facsimile: (212) 227-6501

15 Jeffrey B. Demain, State Bar No. 126715  
 16 Jonathan Weissglass, State Bar No. 185008  
 17 ALTSCHULER, BERZON, NUSSBAUM, RUBIN & DEMAIN  
 18 177 Post Street, Suite 300  
 19 San Francisco, CA 94108  
 20 Telephone: (415) 421-7151  
 21 Facsimile: (415) 362-8064

22  
 23 Attorneys for  
 24 RICOH COMPANY, LTD.

25 UNITED STATES DISTRICT COURT  
 26 NORTHERN DISTRICT OF CALIFORNIA  
 27 SAN FRANCISCO DIVISION

---

28 RICOH COMPANY, LTD., )  
 29 Plaintiff, ) CASE NO. C-03-4669-MJJ (EMC)  
 30 vs. ) CASE NO. C-03-2289 MJJ (EMC)  
 31 AEROFLEX INCORPORATED, et al., )  
 32 Defendants ) **RICOH'S OPPOSITION TO DEFENDANTS'**  
 33 ) **MOTION FOR SUMMARY JUDGMENT OF**  
 34 ) **INVALIDITY OF U.S. PATENT NO. 4,922,432**  
 35 ) **FOR VIOLATION OF 35 U.S.C. § 102(f), OR,**  
 36 ) **IN THE ALTERNATIVE TO DISMISS FOR**  
 37 ) **FAILURE TO JOIN ALL CO-OWNERS AS**  
 38 ) **PLAINTIFFS (No. 3)**

---

39 SYNOPSYS, INC., )  
 40 Plaintiff, )  
 41 vs. ) Date: September 26, 2006  
 42 RICOH COMPANY, LTD., ) Time: 9:30 a.m.  
 43 Defendant. ) Courtroom: 11, 19th Floor  
 44 ) Judge: Martin J. Jenkins  
 45 )  
 46 )

---

47 RICOH'S OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF U.S. PATENT NO. 4,922,432  
 48 FOR VIOLATION OF 35 U.S.C. § 102(f), OR, IN THE ALTERNATIVE, TO DISMISS FOR FAILURE TO JOIN ALL CO-OWNERS AS  
 49 PLAINTIFFS CASE NOS. CV-03-4669-MJJ (EMC) & CV-03-02289 MJJ (EMC)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  

## TABLE OF CONTENTS

	<u>Page No.</u>
I. INTRODUCTION .....	1
II. RICOH'S COUNTERSTATEMENT OF FACTS .....	1
A. The Evidence Shows That Dr. Kobayashi And Mr. Shindo Invented The '432 Patent.....	1
B. Mr. Foo Was A Student And Mentee Of Dr. Kobayashi.....	3
C. Mr. Foo Worked For Dr. Kobayashi's Company, ICC .....	4
D. Mr. Foo Has Little Evidence To Corroborate His Assertions .....	5
III. LEGAL STANDARD .....	7
A. Summary Judgment .....	7
B. The Legal Standards Regarding Joint Inventor And Inventorship .....	9
IV. ARGUMENT.....	11
A. There Are Multiple Evidentiary Disputes Regarding Foo's Inventorship Claims.....	11
B. Foo's Coding Work For ICC Is Not Clear And Convincing Evidence Of Inventorship .....	13
C. Foo's Publications Are Not Clear And Convincing Evidence Of Inventorship .....	14
D. Defendants' Motion Relies Upon Many Additional Disputed Facts .....	17
E. Even If All Of Defendants' Facts Were Undisputed, The Presence Of So Many Other Conflicting Facts Requires The Motion To Be Denied.....	18
F. Even If Foo Was A Co-Inventor, The Case Should Not Be Dismissed.....	19
V. CONCLUSION.....	20

1 TABLE OF AUTHORITIES  
2Page(s)3 FEDERAL CASES  
4

5 <i>ATD Corp. v. Lydall, Inc.</i> , 159 F.3d 534, 540 (Fed. Cir. 1998).....	9
6 <i>Acromed Corp. v. Sofamor Danek Group, Inc.</i> , 253 F.3d 1371, 1381 (Fed. Cir. 7 2001) .....	4
8 <i>Amhil Enterprises Ltd. v. Wawa, Inc.</i> , 81 F.3d 1554, 1557 (Fed. Cir. 1996) .....	9
9 <i>Amini Innovation Corp. v. Anthony California, Inc.</i> , 439 F.3d 1365, 1368 (Fed. 10 Cir. 2006) .....	9
11 <i>Anderson v. Liberty Lobby, Inc.</i> , 477 U.S. 242, 254-5 (1986).....	8, 9
12 <i>Avia Group Intern., Inc. v. L.A. Gear California, Inc.</i> , 853 F.2d 1557, 1561-62 13 (Fed. Cir. 1988).....	9
14 <i>Burroughs Wellcome Co. v. Barr Laboratories</i> , 40 F.3d 1223, 1227-28 (Fed. Cir. 15 1994) .....	10, 11
16 <i>C.R. Bard, Inc. v. M3 Systems, Inc.</i> , 157 F.3d 1340, 1352 (Fed. Cir. 1998) .....	11
17 <i>Continental Can Co. v. Monsanto Co.</i> , 948 F.2d 1264 (Fed. Cir. 1991).....	8
18 <i>Eli Lilly &amp; Co., v. Aradigm Corp.</i> , 376 F.3d 1352, 1360 (Fed. Cir. 2004).....	10, 11
19 <i>Environmental Designs, Ltd. v. Union Oil Co.</i> , 713 F.2d 693, 698 (Fed. Cir. 20 1983) .....	12
21 <i>Ethicon, Inc. v. United States Surgical Corp.</i> , 135 F.3d 1456, 1460 (Fed. Cir. 22 1998) .....	10, 21
23 <i>Fina Oil &amp; Chemical Co. v. Ewen</i> , 123 F.3d 1466, 1476 (Fed. Cir. 1997) .....	10
24 <i>Gemstar-TV Guide International, Inc. v. ITC</i> , 383 F.3d 1352, 1382 (Fed. Cir. 25 2004) .....	11
26 <i>Helifix Ltd. v. Blok-Lok, Ltd.</i> , 208 F.3d 1339, 1346 (Fed. Cir. 2000).....	8, 9
27 <i>Hilgraeve Corp. v. McAfee Associates</i> , 224 F.3d 1349, 1352-53 (Fed. Cir. 2000) .....	9
28 <i>Hodosh v. Block Drug Co.</i> , 786 F.2d 1136, 1143 (Fed. Cir. 1986) .....	8
<i>Hybritech Inc. v. Monoclonal Antibodies, Inc.</i> , 802 F.2d 1367, 1376 (Fed. Cir. 29 1986) .....	10

1		
2	<i>Intel Corp. v. U.S. International Trade Committee</i> , 946 F.3d 821, 842 (Fed. Cir. 1991) .....	4, 12
3		
4	<i>MEMC Electric Materials, Inc. v. Mitsubishi Materials Silicon Corp.</i> , 2006 U.S. Dist. LEXIS 9353, *20 (N.D. Cal. Feb. 24, 2006) .....	9
5		
6	<i>Pannu v. Iolab Corp.</i> , 155 F.3d 1344, 1350 (Fed. Cir. 1998).....	21
7		
8	<i>Scosche Indus. v. Visor Gear</i> , 121 F.3d 675, 682 (Fed. Cir. 1997) .....	9
9		
10	<i>Shatterproof Glass Corp. v. Libbey-Owens Ford Co.</i> , 758 F.2d 613, 624 (Fed. Cir. 1985) .....	11
11		
12	<i>Trovan, Ltd. v. Sokymat SA, Irori</i> , 299 F.3d 1292, 1302 (Fed. Cir. 2002) .....	10
13	<i>Vivus, Inc. v. Kercso</i> , 977 F.Supp. 1004, 1011 (N.D. Cal. 1997) .....	10

## FEDERAL STATUTES

13	35 U.S.C. § 116.....	11
14	35 U.S.C. § 256.....	21
15	35 U.S.C. § 282.....	8
16	35 U.S.C. § 102.....	1
17	Fed. R. Civ. P. 56.....	8
18	Fed. R. Civ. P. 56.....	9

1 **I. INTRODUCTION**

2 For nearly twenty years, Dr. Kobayashi and Mr. Shindo have publicly been acknowledged to be  
 3 the properly named inventors of the '432 patent. Considerable documentary evidence and deposition  
 4 testimony from multiple witnesses, including Dr. Kobayashi, Ricoh employees, and others have  
 5 confirmed that Dr. Kobayashi and Mr. Shindo are proper inventors. Now, after years of litigation,  
 6 Synopsys and the ASIC defendants (collectively "defendants") have engaged a paid "consultant" named  
 7 Yoon-Pin "Simon" Foo who claims that he, and not Dr. Kobayashi and Mr. Shindo, is the sole inventor  
 8 of claim 13 of the '432 patent. Mr. Foo admits that until he was paid by defendants he never previously  
 9 claimed to be the inventor; never told anyone about his "invention"; never sought a certificate of  
 10 correction; never created or kept any dated documents supporting his claim; and cannot explain the  
 11 considerable evidence refuting his assertions.

12 To prevail upon their motion for summary judgment under 102(f), defendants must prove by  
 13 clear and convincing evidence that Mr. Foo is the inventor of claim 13, and must show that there are no  
 14 genuine disputes of material fact. Defendants cannot meet this burden. To the extent that Mr. Foo's  
 15 testimony, for which he is being paid, can be given any credence at all (and there is case law to suggest  
 16 that none should be given), it is flatly contradicted by a large volume of admissible evidence. The motion  
 17 deserves short shrift.

18 **II. RICOH'S COUNTERSTATEMENT OF FACTS**

19 **A. The Evidence Shows That Dr. Kobayashi and Mr. Shindo Invented The '432 Patent**

20 Dr. Kobayashi and Mr. Shindo jointly conceived of the Knowledge Based Silicon Compiler (the  
 21 "KBSC" invention) that resulted in the '432 patent. (Brothers Dec. Ex. 23 Kobayashi 5/15/06 at 366-  
 22 367)<sup>1</sup>. The invention was a shared effort by Dr. Kobayashi and Mr. Shindo as a result of their  
 23 collaboration in 1986 and 1987. (Brothers Dec. Ex. 23 Kobayashi 5/15/06 Tr. at 366-367).

24 Mr. Shindo had a great deal of experience with semiconductors, was an expert in ASIC design,  
 25 and had spent a great deal of time working with semiconductors in a private company. (Brothers Dec.  
 26

---

27  
 28 <sup>1</sup> Ricoh's exhibits to all of their oppositions to the numerous motions for summary judgment are attached to the  
 September 1, 2006 declaration of Kenneth W. Brothers.

1 Ex. 23 Kobayashi 5/15/06 Tr. at 367-8). In the mid 1980's, Dr. Kobayashi was doing research on ASIC  
 2 design and the methodology of ASIC design. (Brothers Dec. Ex. 23 Kobayashi 5/15/06 Tr. at 368-9).  
 3 According to Dr. Kobayashi, he and Mr. Shindo met on several occasions (Brothers Dec. Ex. 23  
 4 Kobayashi 5/15/06 Tr. at 365) and conceived of the combinations of components that resulted in the  
 5 '432 patent. (Brothers Dec. Ex. 23 Kobayashi 5/15/06 Tr. at 379). Mr. Shindo visited ICC many times  
 6 in connection with the development of a Knowledge Based Silicon Compiler. (Brothers Dec. Ex. 24  
 7 Ozeki Tr. at 151); (Brothers Dec. Ex. 25, Takada Memo).

8 The '432 patent was the created from the ideas of Dr. Kobayashi and Mr. Shindo. (Brothers  
 9 Dec. Ex. 23, Kobayashi 5/15/06 Tr. at 377-8). The inventions of the '432 patent, including claims 13-  
 10 17, were the results of collaborative efforts between Dr. Kobayashi and Mr. Shindo. Mr. Shindo and Dr.  
 11 Kobayashi, through various meetings, discussed concepts related to processes and systems for making  
 12 the design of ASICs easier, and jointly collaborated to conceive the combinations of claims 13-17.  
 13 (Brothers Dec. Ex. 23 Kobayashi 5/15/06 Tr. at 366-8, 377-80; Brothers Dec. Ex. 64 Oka 5/26/06 Tr. at  
 14 434-5). The collaboration between Mr. Shindo and Dr. Kobayashi that led to the conception of the  
 15 inventions of the '432 patent, including claims 13-17, began at least as early as the mid 1980s and ended  
 16 prior to January 13, 1988. (Brothers Dec. Ex. 23, Kobayashi 5/15/06 Tr. at 370; Brothers Dec. Ex. 64,  
 17 Oka 5/26/06 Tr. at 434-5). Mr. Shindo was responsible for Ricoh's participation in, and review of, the  
 18 relevant research and development process performed by or on behalf of ICC and Ricoh. (Brothers Dec.  
 19 Ex. 57, Takada 4/17/06 Tr. at 22-23, 46; Brothers Dec. Ex. 64 Oka 5/26/06 Tr. at 434-5). Mr. Shindo,  
 20 along with Dr. Kobayashi, met with representatives from the Bell Seltzer law firm and provided input to  
 21 the Bell Seltzer firm for the drafting of the patent application that resulted in the '432 patent.<sup>2</sup> Extensive  
 22 discovery has been taken of the '432 Patent's invention and reduction to practice, virtually all of which  
 23

---

25 <sup>2</sup> Brothers Dec. Ex. 39, RCL000001-0265; Brothers Dec. Ex. 86 RCL000603-0605, RCL000606,  
 26 Brothers Dec. Ex. 74, RCL001372-1395, RCL001396-1420, RCL001421-1433, RCL001434-1446,  
 27 RCL001447-1460, RCL001461-1512, RCL001513-1643, RCL001644-1766, RCL001767-1824,  
 28 RCL001825-1949, RCL001950-1955, RCL002055-2097, RCL002080-2105, RCL002106-2119,  
 Brothers Dec. Ex. 87, RCL002694-2928, Brothers Dec. Ex. 88, KBSC000001-0028, Brothers Dec. Ex.  
 89, KBSC000225-0229, Brothers Dec. Ex. 90. KBSC00326, Brothers Dec. Ex. 54 DAVIS02-001274-  
 1293.

1 contradicts Mr. Foo's eleventh-hour claims.<sup>3</sup> For example, Dr. Kobayashi testified that Mr. Foo did not  
 2 contribute to the conception behind the '432 patent.<sup>4</sup> Mr. Ozeki, a student of Dr. Kobayashi and  
 3 coworker and roommate of Mr. Foo for three years (including during the relevant time period), testified  
 4 to his belief that Dr. Kobayashi and Mr. Shindo, and not Mr. Foo, were the inventors of the '432  
 5 patented invention. (Brothers Dec. Ex. 24 Ozeki Tr. at 144). Mr. Ozeki further confirmed that, in their  
 6 three years of living together, as students together, and as co-workers for Dr. Kobayashi's company, Mr.  
 7 Foo never told him that of Mr. Foo's newly-found belief that he was an inventor of any portion of the  
 8 '432 patent. (*Id.* at 143).

9 **B. Mr. Foo Was a Student and Mentee of Dr. Kobayashi**

10 Dr. Kobayashi served as an advisor to many students, including Mr. Foo. (Brothers Dec. Ex. 23  
 11 Kobayashi 5/15/06 Tr. at 319). Dr. Kobayashi advised Mr. Foo while he was an undergraduate student.  
 12 (Brothers Dec. Ex. 65 Foo Tr. at 3). Dr. Kobayashi hired Mr. Foo as a research assistant while Mr. Foo  
 13 was an undergraduate student. (Brothers Dec. Ex. 65 Foo Tr. at 7). Dr. Kobayashi also advised Mr. Foo  
 14 as a graduate student for his masters degree and part of his doctoral studies. (*Id.*) As a general course,  
 15 Dr. Kobayashi gave the students their thesis topics. (Brothers Dec. Ex. 24 Ozeki Tr. at 146).

16 Mr. Foo authored a master's thesis entitled: "Managing VLSI CAD with a relational Database

---

19 <sup>3</sup> See, e.g., Brothers Dec. Ex. 55 Kobayashi 5/24/04 Tr. at 53-141, 149-157, 175-186, 208-209, 220-229,  
 20 241-292; Brothers Dec. Ex. 23 Kobayashi 5/15/06 Tr. at 362, 365-381, 397-410; Brothers Dec. Ex. 57  
 21 Takada 4/17/06 Tr. at 18-97; Brothers Dec. Ex. 58 Takada 4/18/06 Tr. at 222; Brothers Dec. Ex. 16,  
 22 Ishijima 4/19/06 Tr. at 29-36, 62-66, 70-71, 75-77, 81-84; Brothers Dec. Ex. 17 Ishijima 5/12/06 at 20-  
 36, 71-72, 107-111; Brothers Dec. Ex. 61 Oka 4/20/06 at 27-129; Brothers Dec. Ex. 62 Oka 4/21/06 Tr.  
 23 at 139-208, 220-256; Brothers Dec. Ex. 63 Oka 5/25/06 at 274-355, 366-375, 382-486.

24 <sup>4</sup> "Q. . . . [C]an you say one way or another as you sit here today whether or not Mr. Foo, your former  
 25 graduate student, contributed to the ideas contained in figure 3? A. This patent was made up of ideas of  
 26 mine and Mr. Shindo's. Q. Can you answer the question that I asked you? A. Excuse me, can I have  
 27 this once again, please? Q. Sure. Can you say one way or the other as you sit here today whether or not  
 28 Mr. Foo, your former graduate student, contributed to the ideas contained in figure 3? A. I cannot think  
 that he made any contribution to this patent. Q. What is your basis for saying that? A. I repeat myself,  
 but I believe that this patent is comprised of my ideas and Mr. Shindo's ideas. And the reason why I say  
 that is for a long time, Mr. Shindo was working in a private corporation working with independent -- the  
 technology dependent cells and using those cells he was working. And for a long time on my part, I was  
 doing research of systems and both of these combined together for the first time it became this patent.  
 That's the background." (Brothers Dec. Ex. 23, Kobayashi 5/15/06 Tr. at 377-8).

1 system.” (Brothers Dec. Ex. 65 Foo Tr. at 7). According to Mr. Foo, the idea for the thesis came from a  
 2 course that he took around 1983 or 1984 with Professor Bonnell on database engineering. (*Id.* at 8-9).  
 3 Dr. Kobayashi approved of the topic and acted as Mr. Foo’s advisor for his master’s thesis. (*Id.*).

4 In the mid 1980’s, Dr. Kobayashi and Mr. Foo co-authored several published papers. One of the  
 5 papers is entitled “A Framework for Managing VLSI CAD Data” and was published in April, 1986.  
 6 (Brothers Dec. Ex. 67 ) This paper discusses a frame based approach for managing VLSI CAD data.  
 7 The frame manager (“FAME”) includes a framework and inheritance algorithms. (*Id.*). However, these  
 8 prior art papers do not disclose the claimed process nor do the Defendants submit any opinion of an  
 9 expert opining that the articles disclose the entirety of the claimed process. Obviously, the claims do not  
 10 seek (nor do they) cover what is disclosed in the prior art. If the Defendants’ theory was correct that if  
 11 any element of any claim is in a prior art reference then the author of every prior art reference would be  
 12 a co-inventor, even if the person never knew the named inventors. This of course would make no sense  
 13 and is not the law. *See, e.g., Acromed Corp. v. Sofamor Danek Group, Inc.*, 253 F.3d 1371, 1381 (Fed.  
 14 Cir. 2001) (“This court has long established that ‘[c]ombination claims can consist of new combinations  
 15 of old elements … for it may be that the combination of the old elements is novel and patentable.’”); *Intel*  
 16 *Corp. v. U.S. Int’l Trade Comm.*, 946 F.3d 821, 842 (Fed. Cir. 1991) (“That all elements of an invention  
 17 may have been old … is however, simply irrelevant. Virtually all inventions are combinations and  
 18 virtually all are combinations of old elements.”)

19 A second co-authored paper is entitled “A Knowledge based system for VLSI module selection”  
 20 and was published October, 1986. (Brothers Dec. Ex. 68) This paper discusses ”Neptune,” a system  
 21 that selects VLSI modules, and based on domain specific knowledge and heuristic rules. helps find  
 22 optimized solutions. It shows design frames representing design objects. The design objects are  
 23 technology independent. (Brothers Dec. Ex. 65 Foo Tr. at 83-84). Mr. Foo likewise tries to downplay  
 24 any contribution by Dr. Kobayashi to this paper, but again this assertion is belied by the fact that both  
 25 appear as co-authors.

26 **C. Mr. Foo Worked For Dr. Kobayashi’s Company, ICC**

27 In the early days of the company, ICC did research and development in the area of digital design  
 28 of computers. (Brothers Dec. Ex. 23 Kobayashi 5/15/2006 Tr. at 313-316). Mr. Foo was one of several

1 students that worked for ICC. (Brothers Dec. Ex. 65 Foo Tr. at 139). Mr. Foo did some limited  
 2 computer coding work for ICC, and under the direction of Dr. Kobayashi, helped enter some of the  
 3 computer software code that was included in a version of ICC's software called Knowledge Based  
 4 Silicon Compiler. (Id., at 72-73). KBSC's documents reflect that Mr. Foo was among the least active of  
 5 the students who did work for ICC. (Brothers Dec. Ex. 71).

6 As part of the ICC's company policy employees and consultants such as graduate students were  
 7 required to assign their rights to the company. (Brothers Dec. Ex. 24 Ozeki Tr. at 143-44) The  
 8 assignment of any rights by the employee to the company was a prerequisite condition of employment  
 9 with ICC. (Id. at 148-149). The assignment of rights was also a condition of leaving the company as it  
 10 was part of an exit interview from ICC. (Brothers Dec. Ex. 24, Ozeki Tr. at 143-44; 149).

11 Dr. Kobayashi and Mr. Foo had a falling out due to Mr. Foo's failure or reluctance to complete  
 12 his work for ICC. (Brothers Dec. Ex. 65, Foo Tr. at 31-32). Consequently, Mr. Foo no longer wanted to  
 13 be advised by Dr. Kobayashi and switched advisors. (Id. at 31-32, 37). After Mr. Foo switched  
 14 advisors, he had some animus towards Dr. Kobayashi, as reflected by Mr. Foo's unsuccessful effort to  
 15 try to publish an article that Dr. Kobayashi had co-authored, but without crediting Dr. Kobayashi. Mr.  
 16 Foo admitted that he was forced by the University to withdraw the article. *Id.* at 79; Brothers Dec. Ex.  
 17 69 Foo and Takefuji article).

18 **D. Mr. Foo Has Little Evidence To Corroborate His Assertions**

19 Between the time Mr. Foo first started as a student of Dr. Kobayashi at the University of South  
 20 Carolina in the early 1980's until April 2006, Mr. Foo *never* told anyone that he was the inventor of the  
 21 '432 patent. (Brothers Dec. Ex. 65, Foo Tr. at 70-75). Mr. Foo admitted that, from the early 1980's to  
 22 April 2006, he never showed anyone any documents reflecting that he was the inventor of the  
 23 technology of the '432 patent. *Id.* at 57. Mr. Foo also admitted that he did not have any dated  
 24 documents supporting his assertions, just unbound, hand drawn documents. (*Id.*) He admitted that, even  
 25 though he knew that Dr. Kobayashi and Mr. Shindo were working on a logic synthesis system, he never  
 26 told them (or anyone else) that he considered himself to be an inventor. (*Id.* at 70-75).

27 In April 2006, Mr. Foo was retained as a consultant by defendants, and has been paid \$250 an  
 28 hour for his time, including his testimony. (*Id.* at 18). Only after he was retained by defendants did Mr.

1 Foo claim that he was an inventor of the ‘432 patent. (*Id.* at 125). Only after he was retained by  
 2 defendants did Mr. Foo’s produce his hand drawn sketches supposedly outlining his “invention.” (*Id.* at  
 3 42-47; 132). Mr. Foo acknowledged that he had never shown those sketches to anyone before he  
 4 showed them to defendants’ counsel. (*Id.* at 57).

5 Mr. Foo has only recently indicated that he had invented all of the claims of the ‘432 patent.  
 6 During his recent deposition in this case, Mr. Foo initially indicated that he invented certain elements  
 7 claims of the ‘432 patent. Subsequently, after a break in the deposition and discussion with his counsel,<sup>5</sup>  
 8 Mr. Foo then indicated that he is the inventor of essentially all of the claims of the ‘432 patent. (*Id.* at  
 9 109-120, 121-125).

10 Mr. Foo’s motive and testimony are highly suspect, especially in the face of all of the evidence  
 11 to the contrary. For example, Mr. Foo considered himself to be an “expert” in very large scale  
 12 integration (“VLSI”) of microchip design only after only a year or so of study, including a course taught  
 13 by Dr. Kobayashi on digital design logic.<sup>6</sup> (*Id.* at 22-23; 131-132). In fact, Mr. Foo testified that as a  
 14 result of his year or so of study, he knew more about VLSI design than his instructor, advisor and  
 15 mentor, Dr. Kobayashi! (*Id.* at 131-132).

16 Mr. Foo did not tell anyone about his invention and did not show anyone the sketches that he  
 17 offered as proof of being the inventor of the ‘432. Mr. Foo shared an apartment with Mr. Ozeki for  
 18 several years and never told him that he was an inventor of the ‘432 patent or any parts of the ‘432  
 19 patent. Mr. Ozeki testified does not believe that Mr. Foo invented the ‘432 patent. Mr. Foo claimed to  
 20 have produced or otherwise retained undated, hand drawn sketches that are supposed to lend support for  
 21 this position, suggesting that he has kept all of these papers for the last 20 years. (*Id.* at 45). Although  
 22 Mr. Foo said that he had kept many other papers from the relevant period, was not able to produce any  
 23 documents from a class he took with Dr. Bonnell that he said had significantly influenced his “ideas” for  
 24

25  
 26 <sup>5</sup> Mr. Foo’s counsel is Howrey, the same law firm representing Synopsys and the defendants.

27 <sup>6</sup> There is some question of fact as to whether Mr. Foo was preparing to leave the University of South  
 28 Carolina and move in the private sector prior to any allegation that Dr. Kobayashi caused Mr. Foo to be  
 placed in a difficult situation. From at least one email that Mr. Foo produced, Mr. Foo was looking for  
 job at IBM. (Brothers Dec. Ex. 75, Foo 000215)

1 his “invention.” (*Id.* at 25-26). It was only after he was retained and paid by the defendants that he  
 2 uncorked the assertion that he was the sole inventor for claim 13. (*Id.* at 125). Even defendants’ expert  
 3 witnesses have a hard time crediting Mr. Foo’s testimony. As Dr. Mitchell states “I cannot state with  
 4 certainty which ideas were contributed by Foo, which were contributed by Kobayashi, and which came  
 5 out of joint brain storming sessions.” (Brothers Dec. Ex. 34 Mitchell Report at 62). Neither Mr. Foo  
 6 nor defendants’ expert attempt to reconcile Mr. Foo’s claim of inventorship with all of the evidence to  
 7 the contrary.

8 **III. LEGAL STANDARD**

9 **A. Summary Judgment**

10 Summary judgment is considered a drastic remedy and deprives a party of the right to a jury  
 11 trial; courts, therefore, apply a strict standard of review. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242,  
 12 254-5 (1986). Summary judgment may properly be granted only where no genuine issue of material fact  
 13 exists or where, viewing the evidence and inferences that may be drawn therefrom in the light most  
 14 favorable to the party opposing summary judgment, the movant is clearly entitled to prevail as a matter  
 15 of law. Fed. R. Civ. P. 56(c); *Anderson*, 477 U.S. at 255 (“The evidence of the nonmovant is to be  
 16 believed, and all justifiable inferences are to be drawn in his favor.”). Summary judgment is “to avoid a  
 17 clearly unnecessary trial . . . not to substitute lawyers’ advocacy for evidence.” *Cont’l Can Co. v.*  
 18 *Monsanto Co.*, 948 F.2d 1264 (Fed. Cir. 1991).

19 There is a high standard for summary judgment motions in patent cases. A patent is presumed to  
 20 be valid. 35 U.S.C. § 282 (2006) (“A patent shall be presumed valid”). “This presumption only can be  
 21 overcome by clear and convincing evidence to the contrary.” *Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d  
 22 1339, 1346 (Fed. Cir. 2000). Summary judgment of invalidity may only be granted if the movant  
 23 establishes that there were no material facts in dispute related to the movant’s assertion of invalidity *and*  
 24 also presents clear and convincing evidence showing that the patent is invalid. *Id.* at 1346.

25 Summary judgment is improper when there is a conflict between expert opinions; a trial with the  
 26 refining fire of cross-examination is a more effective means of arriving at a conclusion than perusal of  
 27

1 *ex parte* declarations of experts. *Hodosh v. Block Drug Co.*, 786 F.2d 1136, 1143 (Fed. Cir. 1986). The  
 2 Federal Circuit warns that “differences in the experts’ descriptions of [the allegedly infringing program]  
 3 raise a genuine issue of material fact. The record shows a genuine and material conflict over the  
 4 [operation of the program] arising from the differing explanations. . . . Moreover the record does not  
 5 conclusively describe [the operation of the program]. . . . The determination of whether either description  
 6 (or neither) is correct requires a factual determination of the actual operation of the [program].”  
 7

8 *Hilgraeve Corp. v. McAfee Assocs.*, 224 F.3d 1349, 1352-53 (Fed. Cir. 2000).

9 Summary judgment must be support by “facts as would be admissible in evidence.” *MEMC*  
 10 *Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 2006 U.S. Dist. LEXIS 9353, \*20 (N.D. Cal.  
 11 Feb. 24, 2006) *citing* Fed. R. Civ. P. 56(e). In deciding on a summary judgment motion, the court may  
 12 take into account any material that would be admissible or usable at trial, but inadmissible evidence may  
 13 not be considered. *Scosche Indus. v. Visor Gear*, 121 F.3d 675, 682 (Fed. Cir. 1997) (“To be acceptable  
 14 at summary judgment stage, the evidence presented in the affidavit must be evidence that would be  
 15 admissible if presented at trial through the testimony of the affiant as a sworn witness,” *quoting* 11 James  
 16 Wm. Moore, Moore’s Federal Practice § 56.14[1][d], at 56-162 (3d ed. 1997) (“Affidavits [that] do not  
 17 satisfy Rule 56(e) [] must be disregarded”).

18 A court may only grant summary judgment if no reasonable jury could agree with the non-  
 19 movants’ factual contentions. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 540 (Fed. Cir. 1998).  
 20 Consequently, a district court should approach the fact issues underlying a motion for summary  
 21 judgment with great care. *Amhil Enters. Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1557 (Fed. Cir. 1996).

22 Any doubts, inferences, or issues of credibility must be resolved against the movant. *Helifix*, 208  
 23 F.3d at 1345-6. Additionally, evidence of the non-movant is to believed and all inferences drawn in his  
 24 favor. *Anderson*, 477 U.S. at 255. Even where the movant can make a *prima facie* showing by clear  
 25 and convincing evidence based on the movant’s particular interpretation of the facts, summary judgment  
 26 is still improper if there are *any* genuine issues of material fact. *Helifix*, 208 F.3d at 1346, 1350  
 27 (vacating district court’s summary judgment of invalidity due to genuine issues of material fact). “To  
 28

1 overturn a summary judgment, the non-movant need only show that one or more of the facts on which  
 2 the district court relied was 'genuinely in dispute' and was material to the judgment." *Amini Innovation*  
 3 *Corp. v. Anthony California, Inc.*, 439 F.3d 1365, 1368 (Fed. Cir. 2006).

4 **B. The Legal Standards Regarding Joint Inventor And Inventorship**

5 The first step of an inventorship analysis, like an infringement or invalidity analysis, begins with  
 6 the construction of the terms of each asserted claim to determine the subject matter encompassed  
 7 thereby. *Trovan, Ltd. v. Sokymat SA, Irori*, 299 F.3d 1292, 1302 (Fed. Cir. 2002). The second step of  
 8 such analysis is "to compare the alleged contributions of each asserted co-inventor with the subject  
 9 matter of the properly construed claim to then determine whether the correct inventors were named."  
 10 *Trovan*, 299 F.3d at 1302. If either party fails to request a claim construction hearing, there is a  
 11 presumption that the meanings of the claim terms are clear. *See Eli Lilly & Co., v. Aradigm Corp.*, 376  
 12 F.3d 1352, 1360 (Fed. Cir. 2004).

14 No bright-line standard exists for the determination of whether a person is a joint inventor; such  
 15 determination rather is fact specific. *See Fina Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir.  
 16 1997). When a question of inventorship is presented, "the critical question . . . is who conceived . . . the  
 17 subject matter of the claims at issue." *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456,  
 18 1460 (Fed. Cir. 1998). This is a fact-dependent analysis ill-suited for summary judgment: "To  
 19 determine whether [a person] made a contribution to the conception of the subject matter of [a claim,  
 20 the] court must determine what [the person's] contribution was and then whether that contribution's role  
 21 appears in the claimed invention." *Id.* at 1461. Because "conception is the touchstone of inventorship,"  
 22 each joint inventor must generally contribute to the conception of the invention. *Vivus, Inc. v. Kercso*,  
 23 977 F.Supp. 1004, 1011 (N.D. Cal. 1997), quoting *Burroughs Wellcome Co. v. Barr Lab.*, 40 F.3d 1223,  
 24 1227-28 (Fed. Cir. 1994). Additionally, an inventor need not make a contribution to every claim in the  
 25 patent but a "contribution to one claim is enough." *Ethicon*, 135 F.3d at 1460.

27 Conception is defined as "the 'formation in the mind of the inventor, of a definite and permanent  
 28 idea of the complete and operative invention, as it is hereafter to be applied in practice. " *Hybritech Inc.*

1 *v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376 (Fed. Cir. 1986) (citation omitted). An inventor  
 2 has a definite and permanent idea when he/she has a “specific, settled idea, a particular solution to the  
 3 problem at hand, not just a general goal or research plan he hopes to pursue.” *Burroughs Wellcome*, 40  
 4 F.3d at 1228. Conception is complete when “only ordinary skill would be necessary to reduce the  
 5 invention to practice, without extensive research or experimentation.” *Id.* at 1228. Thus, facts relevant  
 6 to inventorship are “those showing the conception of the invention.” *C.R. Bard, Inc. v. M3 Systems,*  
 7 *Inc.*, 157 F.3d 1340, 1352 (Fed. Cir. 1998).

8 In joint inventorship, the critical question is whether the alleged joint inventor made  
 9 “contribution to the conception of the claimed invention that is not insignificant in quality, when that  
 10 contribution is measured against the dimension of the full invention.” *Eli Lilly & Co.*, 376 F.3d at 1358.  
 11 Further, the alleged joint inventor asserting inventorship under 35 USC § 116, must prove “some  
 12 element of joint behavior, such as collaboration or working under common direction, one inventor  
 13 seeing a relevant report and building upon it or hearing another’s suggestion at a meeting.” *Eli Lilly &*  
 14 *Co.*, 376 F.3d at 1358 (citation omitted). The Federal Circuit stated that an inventor “may use the  
 15 services, ideas, and aid of others in the process of perfecting his invention without losing his right to a  
 16 patent.” *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985)  
 17 (citation omitted).

18 Additionally, it is not enough for an individual to suggest his inventorship, there must be  
 19 corroboration. “Alleged co-inventors must establish their co-inventorship by facts supported by clear  
 20 and convincing evidence.” *Gemstar-TV Guide Int’l, Inc. v. ITC*, 383 F.3d 1352, 1382 (Fed. Cir. 2004).  
 21 “To meet the burden of clear and convincing evidence, the alleged co-inventors must prove their  
 22 contribution to the conception of the invention with more than their own testimony.” *Id.* “Whether the  
 23 co-inventor’s testimony has been sufficiently corroborated is evaluated under a ‘rule of reason analysis,’  
 24 which requires that an ‘evaluation of all pertinent evidence must be made so that a sound determination  
 25 of the credibility of the inventor’s story may be reached.’” *Id.* (internal citations omitted).  
 26  
 27  
 28

1 **IV. ARGUMENT**

2 It is the entirety of the claim including the combination of elements that is unique, not just the  
 3 elements by themselves. “That all elements of an invention may have been old ... is however, simply  
 4 irrelevant. Virtually all inventions are combinations and virtually all are combinations of old elements.”  
 5 *Intel Corp. v. U.S. Int'l Trade Comm.*, 946 F.3d 821, 842 (Fed. Cir. 1991), citing *Environmental*  
 6 *Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983). In patent law, even if individual  
 7 claim elements may have existed in the prior art, it is the combination of those existing elements that can  
 8 be novel and patentable. “This court has long established that ‘[c]ombination claims can consist of new  
 9 combinations of old elements ... for it may be that the combination of the old elements is novel and  
 10 patentable.’” *Acromed Corp. v. Sofamor Danek Group, Inc.*, 253 F.3d 1371, 1381 (Fed. Cir. 2001),  
 11 quoting *Clearstream Wastewater Sys. V. Hydro-Action, Inc.*, 206 F.3d 1440, 1444 (Fed. Cir. 2000).  
 12 Because it is the novel, non-obvious combination of elements that makes an invention patentable, all six  
 13 elements of claim 13 of the patent in suit comprise the joint invention of Dr. Kobayashi and Mr. Shindo.  
 14 To determine whether Mr. Foo contributed to that combination of elements is an intensely fact-specific  
 15 question, making summary judgment inappropriate.

16 Dr. Kobayashi and Mr. Shindo are the correctly named inventors of the ‘432 patent. Defendants’  
 17 motion does not seriously dispute that these two inventors jointly conceived of the invention reflected in  
 18 ‘432 patent. Dr. Kobayashi and Mr. Shindo met on several occasions, and during these meeting and  
 19 their ongoing collaborations conceived of the ‘432 patent. Mr. Foo does not claim that he attended any  
 20 of those meetings. Defendants have not shown by clear and convincing evidence that Mr. Foo should  
 21 have been named as an inventor.

22 To prevail, defendants must show by clear and convincing evidence that Mr. Foo conceived of  
 23 claim 13 the ‘432 patent, and that there is no admissible evidence to the contrary. Defendants cannot  
 24 meet this burden. Even defendants own expert conceded that he “cannot state with certainty which ideas  
 25 were contributed by Foo, which were contributed by Kobayashi, and which came out of joint brain  
 26 storming sessions.” (Brothers Dec. Ex. 34 Mitchell Report at 62).

27 **A. There Are Multiple Evidentiary Disputes Regarding Foo’s Inventorship Claims**

28 Although Mr. Foo testified (after conferring with defendants’ counsel) that he was the sole

1 inventor of all of the elements of claim 13 (Brothers Dec. Ex. 65 Foo Tr. at 125), in their moving papers,  
 2 defendants do not attempt to support this wild assertion. Instead, they argue that Mr. Foo may have  
 3 contributed to at most three of the six elements of claim 13: Claim element “B”: “storing data  
 4 describing a set of available integrated circuit hardware cells for performing the actions and conditions  
 5 defined in the stored set;” ; claim element “C”: “storing in an expert system knowledge base a set of  
 6 rules for selecting hardware cells to perform the actions and conditions;” and claim element “F”:  
 7 “selecting from said stored data for each of the specified definitions a corresponding integrated circuit  
 8 hardware cell for performing the desired function of the application specific integrated circuit, said step  
 9 of selecting a hardware cell comprising applying to the specified definition of the action or condition to  
 10 be performed, a set of cell selection rules stored in said expert system knowledge base and generating  
 11 for the selected integrated circuit hardware cells, a netlist defining the hardware cells which are needed  
 12 to perform the desired function of the integrated circuit and the interconnection requirements therefor.”  
 13 But, the evidence provided by defendants does not support this.

14 For example, defendants have failed to show by clear and convincing evidence that Mr. Foo  
 15 invented element “B” of claim 13, and even if they had, it is disputed by evidence to the contrary. Dr.  
 16 Soderman’s declaration states:

17 From my analysis of the ‘432 patent specification, file history, and prior art cited therein, it is  
 18 my opinion that the unique invention patented in claims 13-17 is the use of all of the  
 19 elements recited in the claims. With many inventions, some or all of the individual  
 20 component parts of the invention may have pre-existed in the art prior to the invention. The  
 21 act of storing hardware cells in a cell library, for example, was known in the art prior to the  
 22 invention. Similarly, the use of expert systems and rules for selecting various components,  
 23 such as place and route components, were known prior to the invention. Even so, combining  
 24 parts in a particular manner does not necessarily follow even if they are individually known  
 25 unless hindsight is being used, and I have been informed that use of hindsight is improper.

26 From my analysis of the publications from Dr. Simon Foo, I have determined that any type of  
 27 “expert system” he may have developed was simply a system for selecting technology-  
 28 independent functional modules. The work of Dr. Foo, therefore, if it could be attributed to  
 him, would be more like the work of Dr. Kowalski in the Kowalski References, discussed  
 above. Dr. Foo’s work certainly would not encompass the unique combination of elements  
 presented in claims 13-17 of the ‘432 patent.

(Soderman Dec. ¶¶ 54-55.) Thus, even if defendants could prove that Mr. Foo invented element B,  
 which they cannot, there is no showing that Mr. Foo was part of the collaborative effort behind the ‘432  
 and that part of his contribution was element “B.” At best, the source of the contribution of element “B”

1 is a question of fact that cannot be resolved on summary judgment. Defendants also have failed to show  
 2 by clear and convincing evidence that Mr. Foo contributed elements “C” and “F” of claim 13, and  
 3 likewise if he had, it is disputed by evidence to the contrary. As indicated in Dr. Soderman’s declaration  
 4 quoted above, Mr. Foo was not part of the collaborative effort behind the ‘432. There is no clear and  
 5 convincing evidence of his contribution to elements “C” or “F.”

6 Additionally, defendants are offering un-sponsored analysis for this last point. The motion does  
 7 some self effacing analysis on the outline for Mr. Foo’s 1986 independent course work and then likens it  
 8 to elements of element “F”. This attorney analysis is set forth without any support as it is not sponsored  
 9 by Dr. Mitchell or any of the other ASIC defendants’ experts. At best, the source of the contribution of  
 10 element “F” is a question of fact that cannot be resolved on summary judgment.

11 Some of Mr. Foo’s assertions are ignored by defendants’ own experts because they know the  
 12 assertions are not credible. Defendants nevertheless repeat those assertions in their papers. For  
 13 example, defendants proffer Mr. Foo’s 1986 course proposal as supporting his contention that he came  
 14 up with the idea of storing rules in knowledge base. However, neither of defendants’ inventorship  
 15 experts – Dr. Mitchell and Dr. Kowalski –endorse or otherwise advance this position in their expert  
 16 reports. It is astounding that the attorneys step in as purported experts and attempt to map from what is  
 17 purported to be an outline of Mr. Foo’s research goals from 20 years ago to the ‘432 patent by simply  
 18 connecting the dots of similarly named things, and seek to do so without having the necessary skill in  
 19 the art.<sup>7</sup>

20 **B. Foo’s Coding Work For ICC Is Not Clear And Convincing Evidence Of  
 21 Inventorship**

22 Mr. Foo’s limited computer coding work for ICC is not inventorship. Mr. Foo was a consultant  
 23 for ICC. (Brothers Dec. Ex. 65, Foo Tr. at 70-73). ICC employees wrote the program or code the ideas  
 24 set out by Dr. Kobayashi and Mr. Shindo. (Id. at 71-73; Brothers Dec. Ex. 24, Ozeki Tr. at 45-6). The  
 25 successful creation and execution of a program that implement another’s novel idea does not make the

---

26  
 27 <sup>7</sup> For example the attorneys claim (at p. 8) that Foo’s “make a state reduction and state assignment”  
 28 maps to a “state list” without an understanding and explanation of expert, presumably because “**it is  
 clear**”

1 programmer the inventor of the idea. As such, even if Mr. Foo had come up with a way to help  
 2 implement the invention of Kobayashi and Shindo by creating part of a program, that does not mean that  
 3 he contributed to the inventorship. As such, any contribution he made programming an idea that may  
 4 correspond to a claim element does not mean that Mr. Foo was the inventor of that claim element.

5 The evidence does not show by clear and convincing evidence that Mr. Foo conceived of any of  
 6 the claimed elements. At best, Mr. Foo was responsible for implementing (by being creating a program  
 7 to carry out the function of some of the elements for ICC) some of the ideas of the invention. The  
 8 motion overlooks the fact that Mr. Foo admitted that he worked at VLSI design at a different level,  
 9 which is another reason why Mr. Foo's not the inventor. (Brothers Dec. Ex. 65, Foo Tr 83-85, 101-  
 10 103). Ricoh's expert concluded that Mr. Foo work reflects cell selection at a technology independent  
 11 level. (Brothers Dec. Ex. 31, Soderman Rebuttal at 44). The '432 patent, however, uses technology  
 12 specific cell selection. (*Id.* at 46).

13 In addition, admissible evidence shows that ICC employees were required to assign any  
 14 inventions to the company. (Brothers Dec. Ex. 24, Ozeki Tr. at 143-149). The document states for both  
 15 employees and consultants that she or he "hereby assigns to ICC, its successors and assigns, any and all  
 16 patents and rights in patents, and applications for patents." (Brothers Dec. Ex. 72, KBSC2626, 2628).  
 17 This assignment was a prerequisite condition of employment with ICC. (Brothers Dec. Ex. 24 Ozeki Tr.  
 18 at 143-149). The assignment of rights was also a condition of leaving the company as it was part of an  
 19 exit interview from ICC. *Id.* Although Mr. Foo's 20-year old signed agreement no longer exists, the  
 20 testimony of Mr. Ozeki, who was his roommate and fellow ICC employee that all ICC employees and  
 21 consultants were required to execute this agreement, at least creates an issue of fact precluding the grant  
 22 of this motion.

23 **C. Foo's Publications Are Not Clear And Convincing Evidence Of Inventorship**

24 The motion's alleged justification for Mr. Foo being named an inventor does not justify the  
 25 result. The motion suggests, incorrectly, that the following items evidence Mr. Foo's contribution to the  
 26 creation of the invention: (1) Mr. Foo's work on a program called FAME; (2) Mr. Foo's work on the  
 27 Saturn and Neptune programs; (3) Mr. Foo's 1986 course work; (4) the co-authored papers with Dr.  
 28 Kobayashi; and (5) the undated, unsubstantiated Foo documents.

1 Mr. Foo's development of a framed based representation system ("FAME") does not substantiate  
 2 that Mr. Foo's claim to have independently conceived of the '432 invention. Dr. Mitchell, the expert for  
 3 defendants, in his expert report does not rely on Mr. Foo's work on the FAME system to substantiate the  
 4 alleged inventorship by Mr. Foo. Additionally, Dr. Mitchell admits that there is no evidence that the  
 5 idea for the FAME system originated with Mr. Foo. (Brothers Dec. Ex. 34, Mitchell Report at 62-3).  
 6 As such, any work that Mr. Foo performed on FAME does not support his contention that he was an  
 7 inventor of the '432 patent. (Brothers Dec. Ex. 31, Soderman Rebuttal at 47).

8 Similarly, Mr. Foo's development of a program to translate high level functional specifications  
 9 written in antecedent action form into Boolean logic equations ("Saturn") does not substantiate that Mr.  
 10 Foo's claim to have independently conceived of the '432 invention. Dr. Mitchell, the expert for  
 11 defendants, in his expert report does not rely on Mr. Foo's work on the Saturn system to substantiate the  
 12 alleged inventorship by Mr. Foo. (Brothers Dec. Ex. 34 Mitchell Report at 62-3). Additionally, Dr.  
 13 Mitchell admits that there is no evidence that the idea for the Saturn system originated with Mr. Foo.  
 14 (*Id.*). As such, any work that Mr. Foo performed on Saturn does not support his contention that he was  
 15 an inventor of the '432 patent. (Brothers Dec. Ex. 31 Soderman Rebuttal at 47).

16 Similarly, Mr. Foo's development of a program to framed based system for selecting VLSI  
 17 modules ("Neptune") does not substantiate that Mr. Foo's claim to have independently conceived of the  
 18 '432 invention. Dr. Mitchell, the expert for defendants, in his expert report does not rely on Mr. Foo's  
 19 work on the Neptune system to substantiate the alleged inventorship by Mr. Foo. (Brothers Dec. Ex. 34  
 20 Mitchell Report at 62). Additionally, Dr. Mitchell admits that there is no evidence that the idea for the  
 21 Neptune system<sup>8</sup> originated with Mr. Foo. (*Id.*) As such, any work that Mr. Foo performed on Neptune  
 22 does not support his contention that he was an inventor of the '432 patent. (Brothers Dec. Ex. 31  
 23 Soderman Rebuttal at 47). As a result Mr. Foo's programming projects—FAME, Neptune, and  
 24 Saturn—do not show by clear and convincing evidence that Mr. Foo should be considered to be an  
 25 inventor of the '432 patent.

26  
 27  
 28 <sup>8</sup> Neptune is the program discussed in the 1986 Kobayashi-Foo co-authored article "A Knowledge-Based System for VLSI Module Selection". (Brothers Dec. Ex. 69)

1           Mr. Foo's enrollment and attendance in course project in Spring 1986 does not substantiate him  
 2 being called an inventor of the '432 patent. Dr. Mitchell's expert report does not rely on this course  
 3 work to substantiate that the Mr. Foo independently conceived of the '432 patent, including the  
 4 conception of the knowledge based system that included the elements of the elements recited in claims  
 5 13-17 of the '432 patent. (Brothers Dec. Ex. 34 Mitchell Report at 62-3). As Dr. Soderman observes,  
 6 Dr. Mitchell admitted that there is no evidence to show that Mr. Foo came up with the idea for his  
 7 course project. (Brothers Dec. Ex. 31 Soderman Report at 47-8). Thus Mr. Foo's 1986 course project  
 8 does not show by clear and convincing evidence that Mr. Foo should be considered to be an inventor of  
 9 the '432 patent.

10           Any reliance by Mr. Foo's on the two co-authored papers to substantiate that he invented the  
 11 invention of the '432 patent is unfounded. These articles describe systems that use expert knowledge in  
 12 the selection of technology-independent functional modules. These types of expert rules do not meet any  
 13 limitations of claims 13-17 of the '432 patent. This is different from expert knowledge rules of the '432  
 14 patent that are in the selection of technology-independent functional modules. (Brothers Dec. Ex. 31  
 15 Soderman Rebuttal at 48). Dr. Mitchell does not rely on expert rules used in this fashion. Thus Dr.  
 16 Kobayashi and Mr. Foo's co-authored articles do not show by clear and convincing evidence that Mr.  
 17 Foo should be considered to be an inventor of the '432 patent.

18           The undated handwritten notes likewise do not prove inventorship of the '432 patent. They are  
 19 undated, unsubstantiated, and un-collaborated. The fact that these notes surfaced only after Mr. Foo was  
 20 paid by defendants' counsel is highly suspicious, and by itself a reason to deny the motion.

21           Substantively, nothing in the notes show that the '432 patent originated with work by Mr. Foo.  
 22 Defendants imply that there might be a connection between Mr. Foo's handwritten notes and an article  
 23 written by Dr. Kobayashi in 1986. However, this connection is tenuous at best, as neither the Kobayashi  
 24 article nor the handwritten notes satisfy any of the claim limitations. The Kobayashi article only shows  
 25 the use of expert knowledge in the selection of technology independent functional modules. (Brothers  
 26 Dec. Ex. 31 Soderman Rebuttal at 48). Nor does Dr. Mitchell assert that the Kobayashi article satisfies  
 27 any of the claim limitations of the '432 patent. Indeed, Dr. Mitchell could not determine the origin of  
 28 any work cited in the notes. Thus, Mr. Foo's handwritten notes do not support by clear and convincing

1 evidence the position that he was an inventor of the '432 patent.

2 **D. Defendants' Motion Relies Upon Many Additional Disputed Facts**

3 Mr. Foo's master thesis describes the use of a relational database system to manage very large  
 4 scale integration designs. (Brothers Dec. Ex. 66 Foo Master Thesis). Dr. Kobayashi was Mr. Foo's  
 5 advisor at the time. The jury could well infer that the thesis contained the ideas of both Mr. Foo and his  
 6 advisor. Defendants have not established by clear and convincing evidence of whether the thesis  
 7 contained information regarding hardware cells as well as what a hardware cell is, or whether the thesis  
 8 indicates how a module relates to a hardware cell. It is also unclear to what extent the thesis was based  
 9 on the ideas that Mr. Foo gathered from his class work or from other individuals. As a result, it is a  
 10 questionable how Mr. Foo's thesis is representative of work that he originated and representative of any  
 11 possible contribution that he made to the '432 patent. At best, the thesis raises questions of material  
 12 fact, and the motion for summary judgment should be denied.

13 Similarly, defendants have not established by the required threshold whether the co-authored  
 14 article "A Framework for Managing VLSI CAD Data" is representative of work that Mr. Foo originated  
 15 and representative of any possible contribution that he made to the '432 patent. Part of that lack of  
 16 information relates to what is a hardware cell library. Additionally, it is not clear whether the objects  
 17 described in the article relate to PLAs, PLCs, or modules – or are they simply design frames?  
 18 Additionally, it is not clear what contribution was made by each author to the article. As such, this  
 19 raises a question of material fact, and the motion for summary judgment should be denied.

20 With respect to the second co-authored article, "A knowledge based system for VLSI module  
 21 selection" defendants have not established that it is representative of any possible contribution that Mr.  
 22 Foo may have made to the '432 patent. In regards to the content, it is unclear whether the article relates  
 23 to hardware cells or design objects/modules? Nor is it clear whether the system selects cells or  
 24 (functional) modules, and what these are intended to represent. Additionally, it is not clear what  
 25 contribution was made by each author to the article. At best, the co-authored articles of evidence of prior  
 26 art that existed at the time, not of inventorship of the '432 patent.

27 An additional unclear proposition is whether the Neptune program created by Mr. Foo was the  
 28 same Neptune program that was used in the KBSC system as set out in the contract for research and

1 development between ICC and Ricoh. Neptune is listed as one of the names of the program module for  
 2 cell selection that was part of the contract between ICC and Ricoh for the joint development of the  
 3 Knowledge based Silicon Compiler. Program specification indicated that there were two program  
 4 designers: Mr. Foo and Stuart Anderson. Mr. Foo admits that his program was not yet marketable when  
 5 he left ICC. (Brothers Dec. Ex. 65, Foo Tr. at 32; 50-51, 143-145). He does not know what program  
 6 was used by ICC for cell selection. *Id.* Mr. Foo does not know why Mr. Anderson is also listed as a  
 7 designer, or what work Mr. Anderson would have done for the cell selection. *Id.* Even if ICC used Mr.  
 8 Foo's Neptune, it would have to be modified to utilize technology dependant specifications as Mr. Foo's  
 9 Neptune was only utilized for technology independent cells. (Brothers Dec. Ex. 31, Soderman Rebuttal  
 10 at 46, 48).

11       However, even if Mr. Foo designed the program that was used for the KBSC system as set out in  
 12 the contract, that does not make him the inventor of the '432 patent. Being listed in the Ricoh-ICC  
 13 contract as designing a program that is part of larger program does not mean that they invented the idea  
 14 behind the program, at best, it would only be the creation of the computer program. (Brothers Dec. Ex.  
 15 24 Ozeki Tr. at 145-6). With respect to at least some of the computer modules of the ICC-Ricoh joint  
 16 development project, Dr. Kobayashi, along with Mr. Shindo, provided the ideas and the ICC employees  
 17 implemented the ideas, in this case, the implementation of the idea came in the form of computer  
 18 programming. (*Id.* at 146). As such, Mr. Foo's creation of Neptune does not elevate him to inventor of  
 19 the '432 patent.

20       **E. Even If All of Defendants' Facts Were Undisputed, The Presence of So Many Other  
 21 Conflicting Facts Requires The Motion To Be Denied**

22       Assuming *arguendo* that defendants' disputed factual assertions are taken by the Court to  
 23 be true, the motion should still be denied. Assuming that Mr. Foo had actually invented the Neptune  
 24 program and additionally invented a knowledge based silicon compiler, at the very, the motion would be  
 25 denied because there is no showing that his system was designed to operate at a technology dependant  
 26 level. Furthermore, assuming that Mr. Foo designed expert rules, there is no showing that he designed  
 27  
 28

1 expert rules that operate on a technology dependant level. These are just a few of the many examples  
 2 why the motion should be denied.<sup>9</sup>

3 **F. Even If Foo Was A Co-Inventor, The Case Should Not Be Dismissed**

4 Defendants suggest in passing that if Mr. Foo is named as a co-inventor that the case must still  
 5 be dismissed as not all co-inventors are joined in the lawsuit. As set forth above, defendants have not  
 6 met their burden of clear and convincing evidence that this is the case, nor have they shown an absence  
 7 of disputed issues of material fact.

8 Assuming, *arguendo* however that defendants had met their burden by clear and convincing  
 9 evidence, and even if there were no disputed issues of material fact, dismissal still would not be  
 10 appropriate. Upon a finding of incorrect inventorship, a patentee may invoke 35 U.S.C. § 256 and  
 11 “must then be given an opportunity to correct inventorship pursuant to that section.” *Pannu v. Iolab*  
 12 *Corp.*, 155 F.3d 1344, 1350 (Fed. Cir. 1998). “Nonjoinder may be corrected on notice and hearing of all  
 13 parties concerned and upon a showing that the error occurred without any deceptive intent on the part of  
 14 the unnamed inventor.” *Id.* (internal quotes omitted).

15 Defendants cite *Ethicon* for the proposition that a case must be dismissed if less than all  
 16 inventors are joined. 135 F.3d 1456. This assertion is incorrect. In *Ethicon*, the court dismissed an  
 17 infringement suit because a non-joined inventor had already granted an exclusive license to the  
 18 defendant and therefore could not join the suit. 135 F.3d at 1468 (“Because Choi did not consent to an  
 19 infringement suit against U.S. Surgical and indeed can no longer consent due to his grant of an exclusive  
 20 license with its accompanying “right to sue,” Ethicon’s complaint lacks the participation of a co-owner  
 21 of the patent”).

22 Defendants have not made the assertion that they have acquired an exclusive license from either  
 23 Dr. Foo or the University of South Carolina. Therefore, the fact specific holding of *Ethicon* does not  
 24 apply to the present case. *See id.* Dr. Kobayashi and Mr. Shindo are the named inventors and this is  
 25 presumed to be valid. As noted above, defendants have not shown by clear and convincing evidence

---

26  
 27 <sup>9</sup> This also leaves aside the issue that even if Foo did invent the invention of the ‘432 and secreted it  
 28 away by not sharing his ideas or documents with anyone, he cannot be considered a co-inventor because  
 did not share his ideas with anyone until after hired as a consultant by defendants.

1 that Mr. Foo contributed to or collaborated with the '432 invention. Therefore, the motion should be  
2 denied. Additionally, if the Court or jury does find that Mr. Foo did contribute to the '432 invention,  
3 Ricoh would then have the ability to correct inventorship, a process that Foo has never requested.  
4 Finally, ICC required their employees/consultants to assign their rights to the company, so it is an open  
5 issue of whether Foo could make such a claim. In addition, as evidenced by ICC sponsoring the 1986  
6 coauthored Kobayashi-Foo article, Mr. Foo's development work was done for ICC. Therefore, any  
7 potential patent rights would have had would have gone to ICC.

8 **V. CONCLUSION**

9 Defendants failed to provide clear and convincing evidence that Dr. Foo should be considered an  
10 inventor of the '432 patent. At best, in the light most favorable to the non-movant, there exists an issue  
11 of material fact that cannot be resolved by a summary judgment motion. As such, there is no issue of  
12 non-joinder that the Court should address and the motion for summary judgment under 102(f) should be  
13 denied.

14

15

16

17

18

19

20

21

22

23

24

25

26

27

1 Dated: September 1, 2006  
2

3 Jeffrey B. Demain, State Bar No. 126715  
4 Jonathan Weissglass, State Bar No. 185008  
5 ALTSHULER, BERZON, NUSSBAUM,  
6 RUBIN & DEMAIN  
7 177 Post Street, Suite 300  
8 San Francisco, CA 94108  
9 Telephone: (415) 421-7151  
10 Facsimile: (415) 362-8064

RICOH COMPANY, LTD.  
By: /s/ Gary M. Hoffman  
Gary M. Hoffman (*Pro Hac Vice*)  
Kenneth W. Brothers (*Pro Hac Vice*)  
DICKSTEIN SHAPIRO LLP  
1825 Eye Street, NW  
Washington, DC 20006-1526  
Telephone: (202) 420-2200  
Facsimile: (202) 420-2201

Edward A. Meilman (*Pro Hac Vice*)  
DICKSTEIN SHAPIRO LLP  
1177 Avenue of the Americas  
New York, NY 10036-2714  
Telephone: (212) 277-6500  
Facsimile: (212) 277-6501

11 Attorneys for  
12 RICOH COMPANY, LTD.  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28